

INTENSIVE POWERS ON THE WESTERN SLOPES

L. C. BARNES

526
Governor William Stickney
With the compliments
The Author

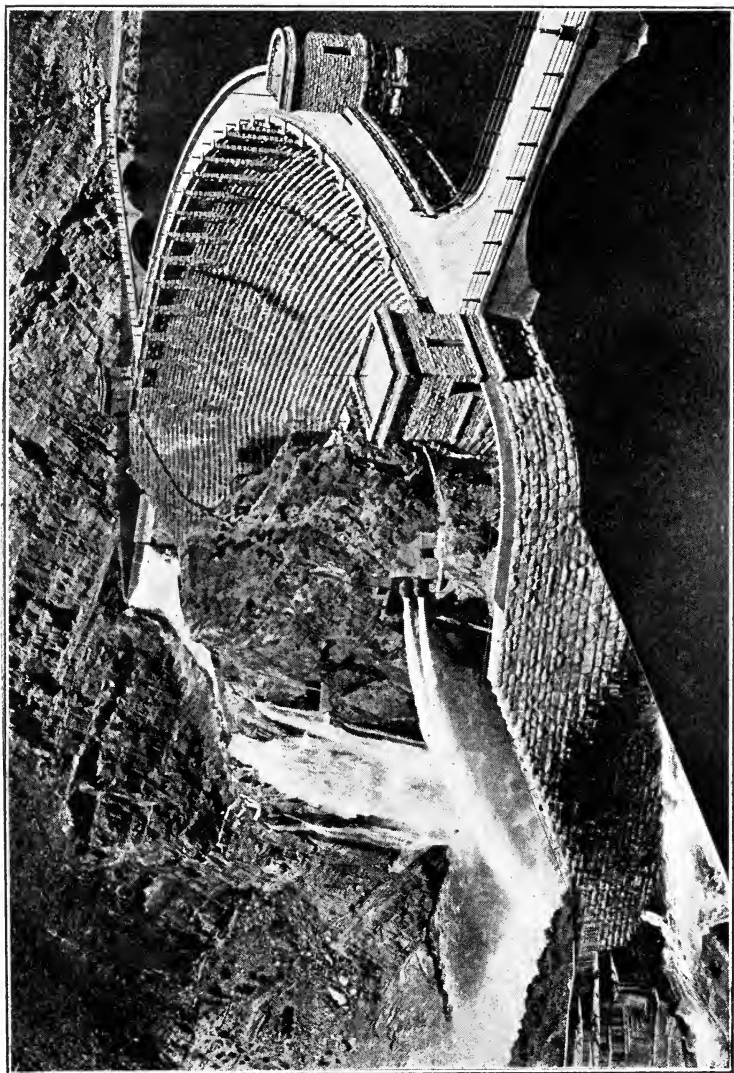
From the collection of the

o z n m
Preinger
v a
t p
Library

San Francisco, California
2006



INTENSIVE POWERS
ON THE
WESTERN SLOPES



ROOSEVELT DAM
Salt River Project, Arizona

INTENSIVE POWERS ON THE WESTERN SLOPES

By
LEMUEL CALL BARNES

A land from out whose depths shall rise
The new-time prophets.

—*Joaquin Miller.*

PHILADELPHIA
THE JUDSON PRESS

BOSTON

CHICAGO

ST. LOUIS

LOS ANGELES

KANSAS CITY

SEATTLE

TORONTO

Copyright, 1922, by
GILBERT N. BRINK, SECRETARY

Published June, 1922

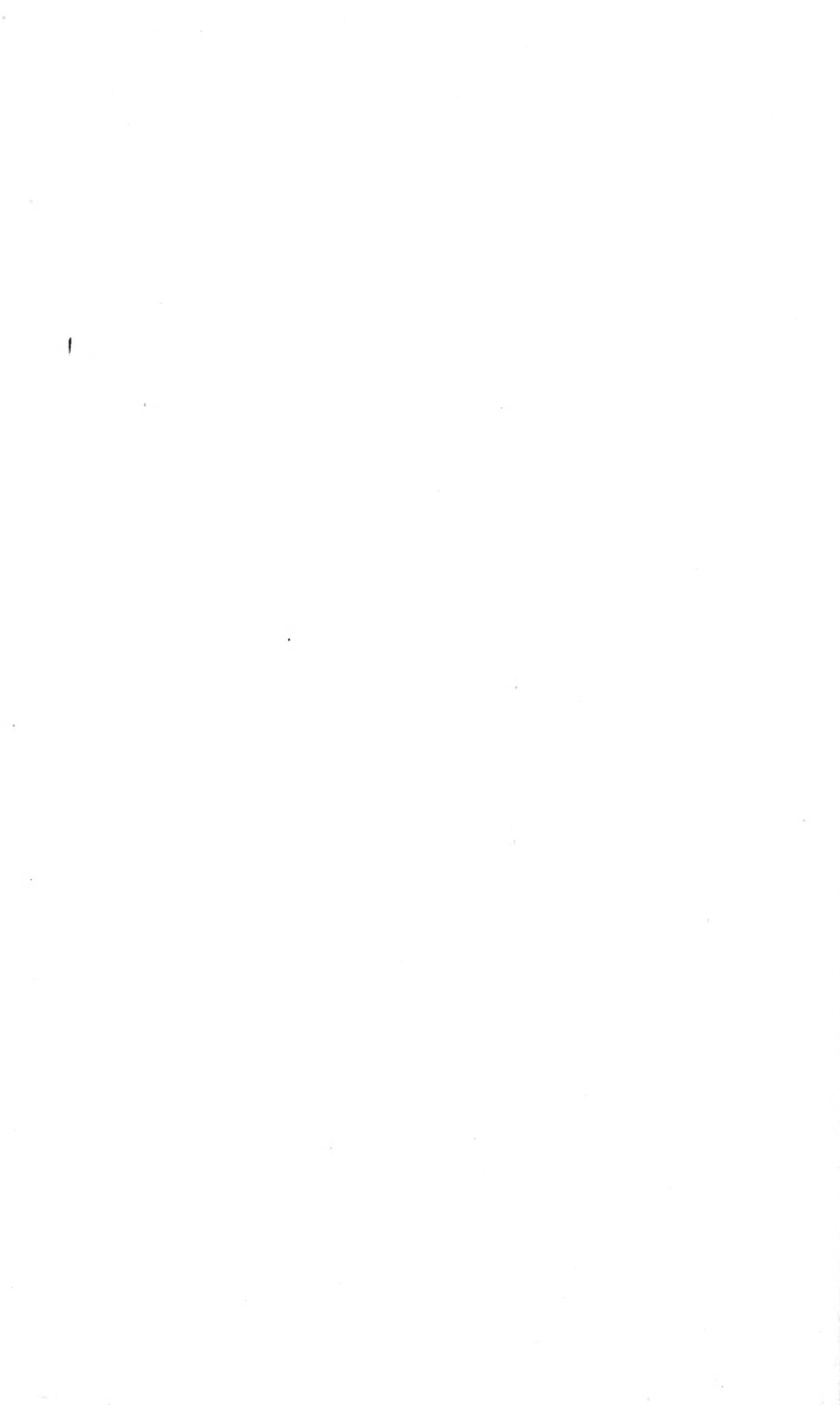
PRINTED IN U. S. A.

FORESPEECH

THE facts given in this paper, though not elsewhere collated, are all acquired from high scientific authorities. They have been graciously read, corrected, and verified by responsible officers of the United States Geological Survey.

The facts may seem astounding to many people, but they are the concrete realities making true the general statement of America's greatest interpreter from abroad, James Bryce:

The West is the most American part of America; that is to say, the part where those features which distinguish America from Europe come out in the strongest relief. What Europe is to Asia, what England is to the rest of Europe, what America is to England, that the Western States are to the Atlantic States, the heat and pressure and hurry of life always growing as we follow the path of the sun.



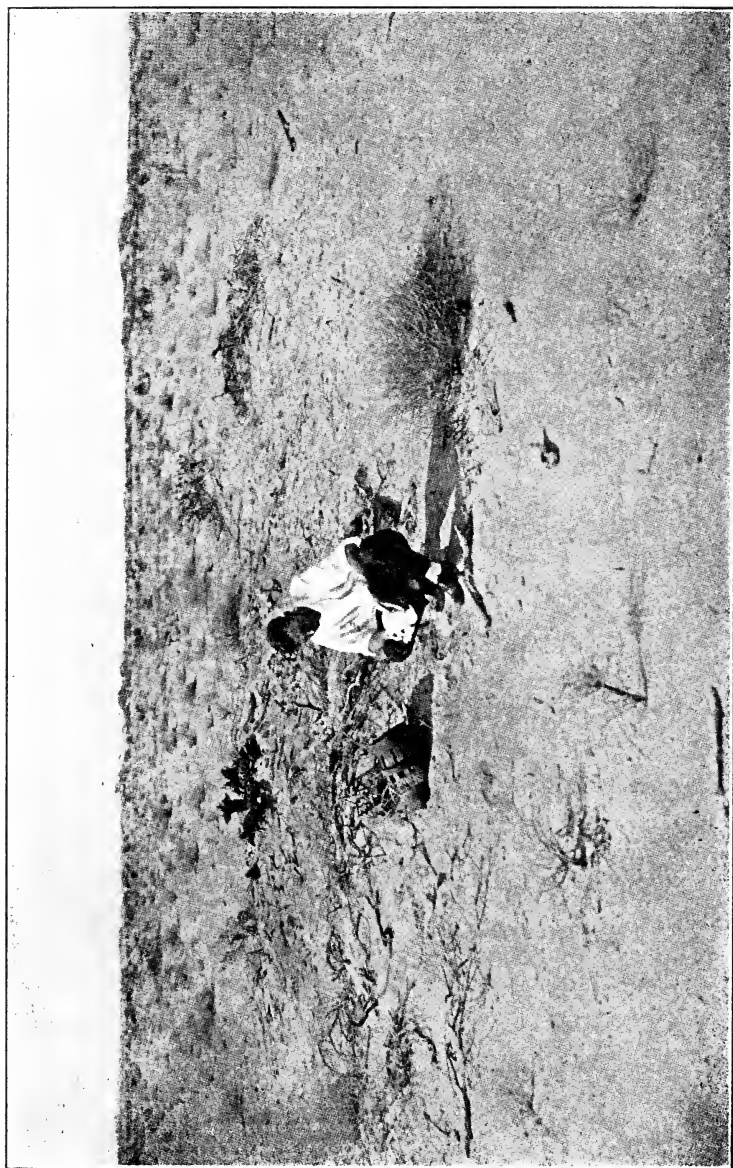
CONTENTS

CHAPTER	PAGE
INTRODUCTION	II
I. INTENSIVE AGRICULTURAL POWER	13
II. INTENSIVE MECHANISTIC POWER	20
III. INTENSIVE SOCIAL POWER	30
IV. INTENSIVE SPIRITUAL POWER	35
CONCLUSION	43
STATISTICAL TABLES	45

LIST OF ILLUSTRATIONS

	PAGE
<i>Roosevelt Dam, Salt River Project, Arizona, Frontispiece</i>	
<i>Waterless, Imperial Valley</i>	10
<i>Watered, Irrigation Ditch in Fruit Grove</i>	14
<i>Map Showing Percentage of Increase or Decrease in Total Population of the United States by States, 1910-1920.</i>	18
<i>Fayette River Valley</i>	18
<i>Source of Both Agricultural and Mechanistic Power, Creating the City of Los Angeles</i>	22
<i>Map Showing Distribution of Water-Power Resources..</i>	23
<i>Source of Power, Site of Long Lake Plant, Washington Water-Power Company, Spokane River.....</i>	24
<i>A Commonwealth Electrified</i>	25
<i>Long Lake Plant of the Washington Water-Power Com- pany, near Spokane</i>	28
<i>Full Suffrage for Women, 1916, Map.....</i>	31
<i>Crossing the Snow-Crowned Cascades, Washington.....</i>	32
<i>The Madison Dam, The Montana Power Company, near Butte, Montana</i>	34
<i>No. 2 Power-house, Madison Dam, The Montana Power Company, near Butte, Montana</i>	36
<i>Protestant Population by States</i>	37
<i>Turbines and Dynamos in No. 2 Power-house, Madison Dam, near Butte, Montana</i>	38
<i>National Forests and Parks, The Nation's Breathing Places</i>	40
<i>Great Falls Tower Line, Missouri River Crossing.....</i>	44





WATERLESS
Imperial Valley

INTRODUCTION

ALWAYS on our planet certain areas have been especially productive. For many centuries high powers of every kind were generated not far from the shores of the Mediterranean Sea. Theodore Roosevelt said :

The Mediterranean era died with the discovery of America ; the Atlantic era is now at the height of its development ; the Pacific era, destined to be the greatest of all, is just at its dawn.

As a matter of fact, what do the Western Slopes of our own country amount to in the essential values of human history? More people in 1920 live within 50 miles of the Statue of Liberty, New York harbor, than in all the eleven immense Rocky Mountain and Pacific States.

1. Region Long Disparaged

Will the Western Slopes ever amount to very much? Eminent Americans for hundreds of years have said, "No."

As recently as 1884 the distinguished geologist of Harvard, Nathaniel S. Shaler, in a monograph on the "Physiography of North America" incorporated in Winsor's highly scientific "Narrative and Critical History of America," says of the Rocky Mountain slopes :

Although these Cordilleras of North America afford access to a great supply of mineral substances, they are on the whole a curse to the continent. They reduce one-third of the continent to sterility. At least nineteen-twentieths of their lands are irretrievably barren. When their resources of precious metals are exhausted, as is likely to be the case within a hundred years, they will probably be to a great extent abandoned by man.

2. Is It Now Overappreciated?

Our question is, Are the heroic strenuositities of the present inhabitants of such a region as this well placed? Is it worth

INTRODUCTION

while for young men and women, who are studying as to where on all the earth they can make their lives count for most, to consider seriously the western third of the United States? Are the missionary and other altruistic forces justified in costly expenditure of life and treasure on the Pacific slopes?

One denomination with which I am well acquainted maintains eight hundred and nine missionaries on the Western Slopes and spent there during the year ending with May, 1921, \$543,448.12 of strictly missionary money, "New World" money. This is in addition to all that the churches there do in self-support. Some other denominations are expending more than this one. In all, it cannot be less than two thousand missionaries and a million and a half dollars, in a single year, lavished there. Are such outlays on such a region as Professor Shaler has described justifiable?

The best way to eliminate superficial judgments is to survey the situation from cardinal points in the development of mankind. What, then, are the essential factors in the progress of the human race? Are they not the intensifying of agricultural power, the intensifying of mechanistic power, the intensifying of social power, and the intensifying of spiritual power? Two of these are at the basis of human life, fundamental; and two are at the summit of human life, superlative.

The basic element of human progress in the long past has been the gradual intensifying of agriculture. First comes the savage who lives by natural fruits and by hunting; then, the nomad who lives by his flocks and herds; after that, the farmer with more or less rationally directed agriculture; finally, intensive farming.

Because subsistence is the condition of everything else, the elemental factor in human progress for all time to come must be intensive agricultural power.

I

INTENSIVE AGRICULTURAL POWER

Men must keep on learning to produce more per acre. Population is increasing faster than production.

1. Intensifying Effect of Irrigation

One of the essentials of agriculture in its most intensive type is artificial irrigation.

We will bit and bridle and rein
The floods of the storm-rocked mountains and lead them down to the plain;
And the foam-ribbed, dark-hued waters, tired from that mighty race,
Shall lie at the feet of palm and vine and know their appointed place;
And out of that subtle union, desert and mountain-flood,
Shall be homes for a nation's choosing, where no home else had stood.¹

The latest available data show the average crop value in the United States to be sixteen dollars (\$16.30) per acre, and the average irrigated crop value, twenty-five dollars (\$25.08) per acre. In some States, even where the average is made high by great irrigated areas, the average value per acre for the whole State is less than half what it is on the irrigated portions. In California the average crop value per acre, irrigated and altogether, is twenty dollars (\$20.39), but on the irrigated portions it is forty-three (\$43.50). In the State of Washington the whole average is twenty dollars (\$20.39), and the irrigated average forty-nine (\$49.82).

The average wheat crop per acre in the United States is 14½ bushels. In Montana, because of irrigation, but including also great dry-farming tracts, the average before the

¹ Sharlot M. Hall.

INTENSIVE POWERS ON THE WESTERN SLOPES

drought of recent years was 24½ bushels per acre, instead of 14½. A friend farming for many years in Montana pointed to one of his fields where he had raised 70 bushels of wheat to the acre.

Other staples, meat and fruits still more than grain, have their abundant home on irrigated land. One acre, with three to nine crops of alfalfa per year, will feed as much beef as thirty acres of open range.

The choicest fruits on Eastern breakfast-tables this morning came from far Western irrigated orchards.

Dr. George Otis Smith, Director of the United States Geological Survey, writes me that "it is common to find land which is irrigated bearing a value fully ten times as great as adjacent lands without irrigation, which nevertheless are farmed on a dry-farming basis." Then he gives the compelling reasons for this fact.

2. The Homeland of This Intensity

Turning to the map of the whole country, what do we see? Its great inevitable irrigation areas are on the semiarid plateaux and valleys of the Western Slopes. Wide stretches of country there are stony wastes incapable of irrigation or of tillage. But portions which can be watered are susceptible of the most intensive kind of cultivation. Vast intervalles are composed to a great depth of "volcanic ash" and other kinds of soil having fertility which is phenomenal.

Government irrigation projects approved up to June 30, 1919, covered over three million (3,212,092) acres, of which over one million (1,000,000) were already irrigated.

Within these projects are 223 towns and 32,835 irrigated farms with a total population of 450,000. The substantial development of the towns is indicated by the fact that there are 879 schools, and 649 churches.

The Government work has only begun in this country. English canals irrigate 15,000,000 acres in Egypt and 35,000,999 acres in India.



WATERED

Irrigation Ditch in Fruit Grove

At the magic touch of water blooms
The wilderness, and where of yore the yoke
Tortured the toilers into dateless toms,
Lo! brightsome fruits to feed a mighty folk.

INTENSIVE AGRICULTURAL POWER

Private enterprise covers vastly more territory than the Government projects. Seventeen million (17,300,000) acres are now irrigated. From thirty to forty million acres can be thoroughly irrigated. This is the conservative official estimate. That will create far more of the fattest kind of farming land than the total area, mountains, forests, lakes, rocks, and all, of England and Wales.

Some believe that in 400,000,000 acres of so-called desert land in the United States at least 150,000,000 acres can be irrigated. That is half as much as all the area now cultivated in the whole country.

The Secretary of the Interior recently announced the completion of plans for a dam at American Falls, Idaho, that provision may be made for irrigating another million acres of land.

The Yuma and Imperial valleys in Arizona and California already are phenomenal in their productiveness, although the utilization of the Colorado River for irrigation is only well begun.

In many a section I have gone through a region without human habitation. A few years later when water had been distributed farmhouses were there, not scattered as in the humid areas, but in intimate neighborhood. Farm boys and girls need not go a mile and a half to school, as they did on the Ohio farm where I was born, but live near enough together to have the school within easy reach.

The most intensive agriculture and compacted rural population are, and are to be, on the Western Slopes. Vast areas also are tillable without irrigation and are now being settled upon. In the semiarid West development in "dry-farming" is almost as phenomenal as that by irrigation.

3. The New Pioneering

Few people have any conception of what is now being done. It is frequently assumed that the day of taking up new farms in large number has ended. The first homestead act of Con-

INTENSIVE POWERS ON THE WESTERN SLOPES

gress was passed sixty years ago. Thenceforward for a long generation people swarmed into the older West. But in the last five reported years more final homestead entries were made than in any other five years since Abraham Lincoln signed the Homestead Act. The five years preceding had the next greatest number. In the last ten years more homesteads were carved out of raw land than in any fifteen years before. That means that more people now than ever are in the pioneer stage. If it is true, as Prof. F. J. Turner in his "The Frontier in American History" seems to show, that the pioneer spirit has been the largest factor in determining American character, then "home missions" in the original meaning of the term, are rendering still not only the highest service, but also the most wide-reaching service of any undertaking in our country.

In these days that which Richard Burton said of the old Santa Fé Trail is to be said of many trails, so many modern highways having been laid down upon the old paths:

It wound through strange scarred hills, down cañons lone
Where wild things screamed, with winds for company;
Its mile-stones were the bones of pioneers;
Bronzed, haggard men, often with thirst a-moan,
Lashed on their beasts of burden toward the sea:
An epic quest it was of elder years,
For fabled garden or for good, red gold,
The trail men strove in days of iron to hold.
Today the steam god thunders through the vast,
While dominant Saxons from the hurtling trains
Smile at the aliens, Mexic, Indian,
Who offer wares, sun-colored, like their past;
Dread dramas of immitigable plains
Rebuke the softness of the modern man;
No menace, now, the desert's mood of sand;
Still westward lies a green and golden land
For at the magic touch of water blooms
The wilderness, and where of yore the yoke
Tortured the toilers into dateless tombs,
Lo! brightsome fruits, to feed a mighty folk.

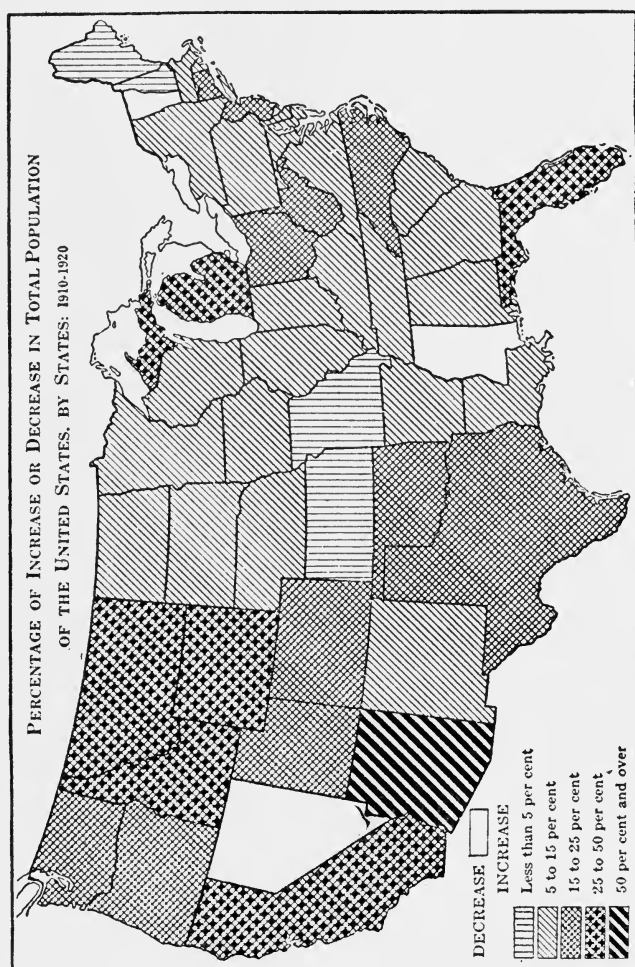
4. A Stupendous Future

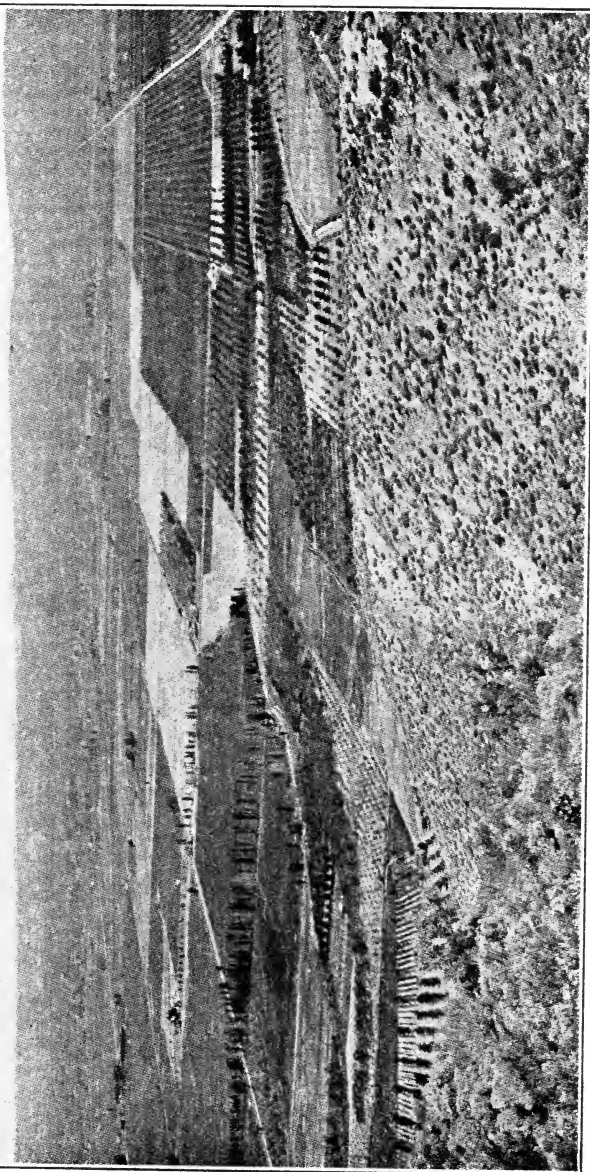
The Rocky Mountain and Pacific States now have nine million residents (8,902,712). When all the practicably available water resources are brought to bear on the tillable areas of these Western Slopes they can produce enough to sustain two hundred million people. This estimate is no sectional boast and no rough guess. It has been carefully worked out by expert students. Read W. J. McGee's "How One Billion of Us Can Be Fed." This Eastern man of science shows how ten times as many people as now can be fed in the whole country, and twenty times as many as now in the western third of the country.

President H. S. Pritchett (whose standing is suggested by the fact that "Who's Who" indicates the degree of LL. D. as conferred upon him by fourteen institutions of learning) has made calculations to similar effect. The most ardent disputant of these estimates says that "growth of population in any country is expressed by a portion of the curve of a logarithmic parabola having the formula $y = \frac{be^{ax}}{1-ce^{ax}}$ where a, b, and c have positive values. The particular point to be discussed here is the major asymptote of the curve as applied to our own country. This gives the ultimate population of continental United States as 197,000,000." He admits, however, that "Japan did actually produce food sufficient to support 2.5 persons per acre of cultivated land. If the United States could do as well on her 800 million acres of arable land, our population might have a maximum limit of 2000 millions." Even if we could not rise to the height of Japan, but could only attain to the degree of efficiency which the Central American mountainous republic of El Salvador has reached at present, we should have more than half a billion people in continental United States. Only students of the actually available resources of water and of the practically inexhaustible fertility of soils, composed in many places of

INTENSIVE POWERS ON THE WESTERN SLOPES

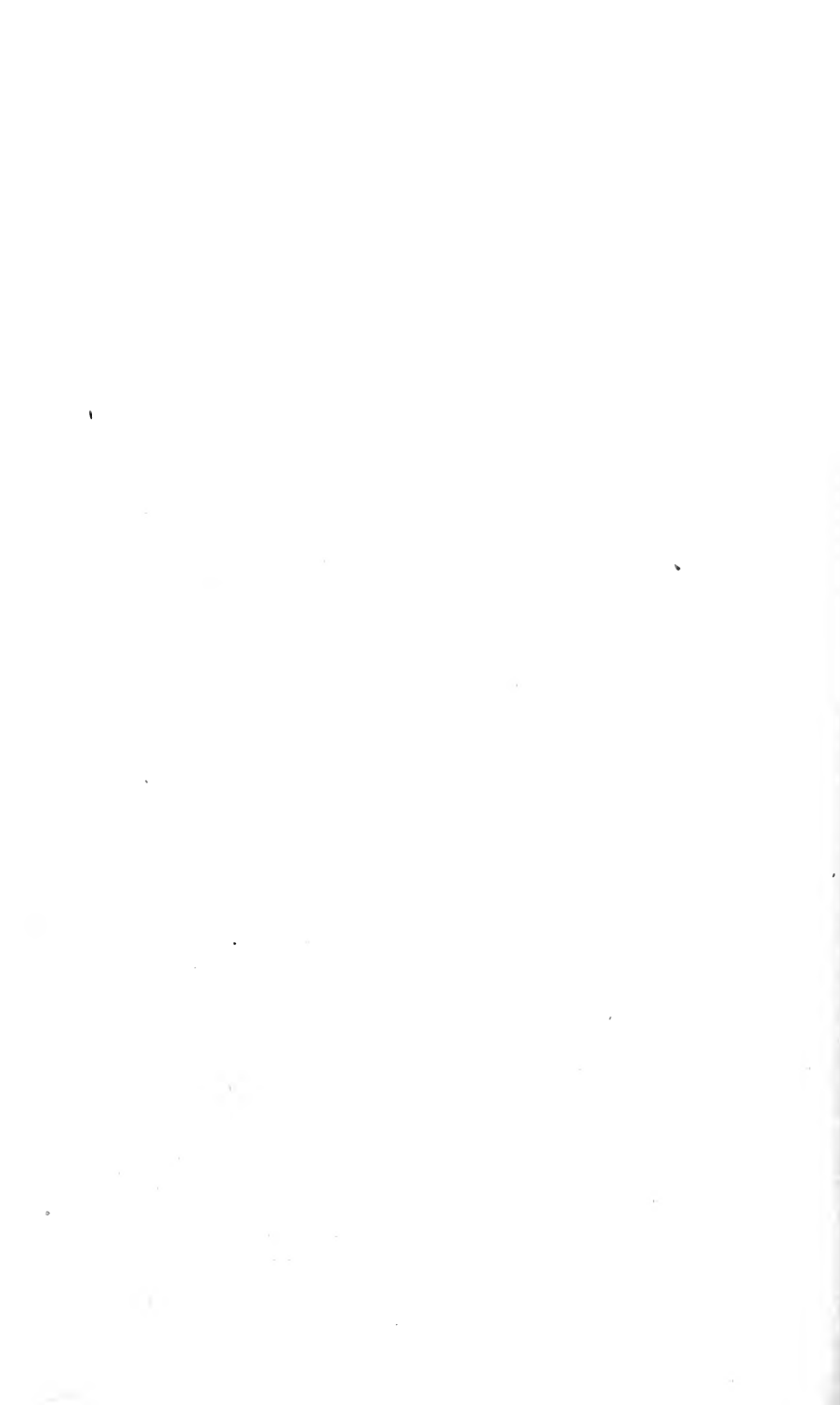
volcanic ash scores of feet deep, are competent to compute the population possibilities of the intermountain and Pacific States. They are the ones who show us that two hundred million people can be provided with food by the Western Slopes.





FAYETTE RIVER VALLEY

Taken from High Ground South of Emmett, Idaho,
Showing Land Under Irrigation



INTENSIVE AGRICULTURAL POWER

Are divinely creative influences on the character of the American people important today? When eight times the population is to be expected in the eastern two-thirds of the country, but twenty times the present population in the western one-third, is it not immeasurably urgent that the Spirit of Christ be made regnant there in these formative days? The answer to this question concerning the character of the future is for us to determine.

But the stupendousness of the future is already determined. Twice the present population of the whole country can live and live well on our Western Slopes. This is not a question of whether any one wishes it to be so or not. It lies imbedded in the nature of things.

The census shows where now the oncoming tides of humanity run highest. Between 1910 and 1920 five of the Western Slope States increased at rates more than double that of the nation as a whole.

I . . . think I hear
The sound of that advancing multitude
Which soon shall fill these deserts. From the ground
Comes up the laugh of children, the soft voice
Of maidens, and the sweet and solemn hymn
Of Sabbath worshipers. The low of herds
Blends with the rustling of a heavy grain
Over the dark brown furrows. All at once
A fresher wind sweeps by, and breaks my dream,
And I am in the wilderness alone.²

But, will anything call such masses of men to this region? Only a fraction of the number supportable will be needed to produce the food for the whole multitude.

This brings us to the other fundamental factor in the progress of mankind, namely, mechanistic power.

² William Cullen Bryant.

II

INTENSIVE MECHANISTIC POWER

Manufacturing and transportation apparently have more to do with the location and attainments of humanity, especially in modern times, than does the basic business of agriculture.

This quarter of a four-square situation is little familiar to many, at least in the wonderful developments of the present moment. To get it distinctly before our minds several items must be considered.

1. From Muscle to Electricity

One is the history of power development. It is a story of revolutions. The main sources of power have been three: muscle-power, water-power, and fuel-power.

When man learned to supplement the power of his own muscle by using the muscles of a horse it was a romantic revolution. At a late day of it the Cavaliers counted themselves the cream of civilization because they were cavaliers. In the beautifully reminiscent Spanish tongue the name for gentleman today means horseman. Horse-power is the scientific unit of all mechanical power.

Not so very long ago another tremendous advance took place. The invention of the steam-engine revolutionized human life, not only manufacturing and transportation, but all the industrial relationships of men to one another.

The hour has now come for another advance as great as that, in some respects greater. It is the advance from steam-power to electric power.

Strictly speaking, it is the electric transmission of power. The power itself is generated either by the weight of water obedient to gravitation or by the enormous expansive power of

water in steam obedient to heat. In common speech, however, men of science, as well as the rest of us, talk about electric power as freely as they do about water-power or steam-power. The phrases are none of them exact as to the ultimate nature of the power. That no man knows, no intelligent man pretends to know. The short name for the essence of it all is God. If the hypothesis of relativity be correct, the easy transmuting of gravitation into electricity is all the more suggestive as to the unity of Supreme Power.

Electric power is as much more efficient than steam-power as steam-power is mightier than ox-power. A distinguished electrical engineer says that when steam-power was introduced in the world, man's power was multiplied one hundred times. When electricity came in, this was again increased just one hundredfold. Thus the index of their combined effectiveness is represented by their product—10,000.

The hour of electric power in America actually struck the tenth day of June, 1920, when President Wilson signed the bill creating the Federal Power Commission. It safeguards the interests of the public and at the same time provides sufficient guaranties to induce capital to invest in the enormous amounts necessary for harnessing the water-powers of the country for the production of electricity.

By December, 31, 1920, i. e., in less than six months, there came to the Commission 143 applications, aggregating (after subtracting all duplications) *twelve million* horse-power (12,530,300).

2. Water-power Electricity Inexhaustible

The next item of vital moment is the apparent fact that water-power is likely to dominate the long future as steam-power has dominated the recent past. Conservatism at such an hour always says "impossible."

One thing, however, is certain; hydroelectric power is, comparatively speaking, inexhaustible. It will last as long as water runs down-hill. Steam-power is generated by coal, oil,

INTENSIVE POWERS ON THE WESTERN SLOPES

and natural gas, all forms of carbon strictly limited in quantity, so that carbo-electric power is strictly limited. Every form of fuel-power has inevitable limitations.

The supply of bituminous coal is enormous but cannot last forever. Anthracite at the present rate of consumption will be exhausted within 200 years at the longest, experts say. Much of the Great War was waged for the possession of coal-mines. Since the war, high diplomacy has been at work for the control of oil, which is commonly believed to have passed the peak of production. The rate of oil consumption is rapidly increasing, but even at the present rate the Director of the Bureau of Mines predicts that in the United States "in less than twenty years the supply still under ground will be exhausted." Natural gas is still more narrowly limited in quantity.

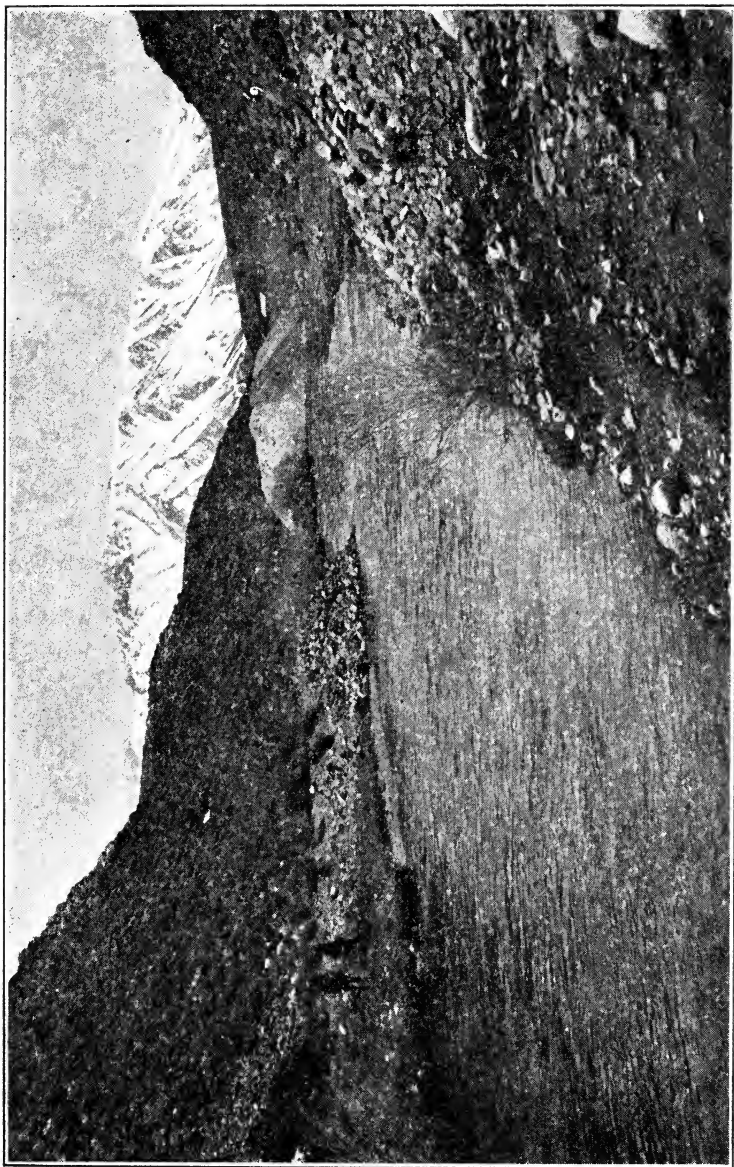
It is our duty as lovers of the kingdom of God among men to take a long look ahead. The only mechanistic power in sight for the development of the generations to come is hydroelectric power. It has been strikingly called "white coal." Tide-power, direct solar power, and some other sources of power are dreamed about, but hydroelectric power is the only source of large power assured. This power is by the nature of things guaranteed.

Only with these facts in mind as to the intensive nature of mechanistic power for the days to come, are we prepared to judge fairly the question as to the region in which that power is to be enthroned.

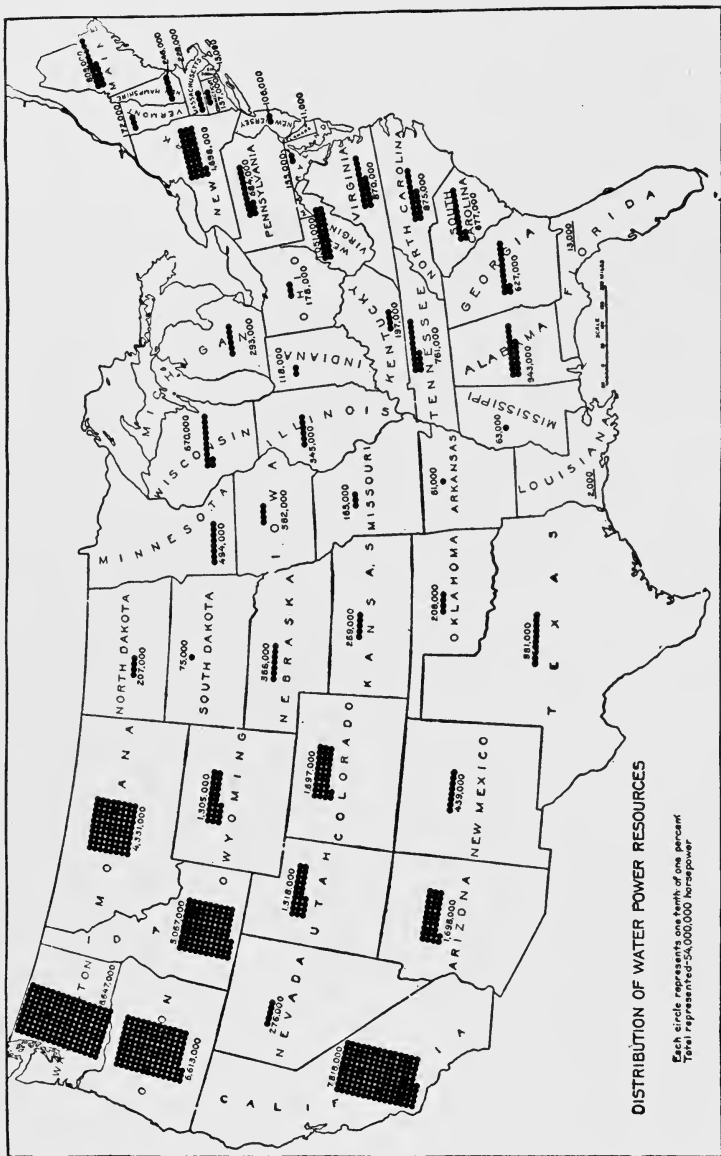
3. The Seat of Hydroelectric Power on the Western Slopes

The answer is the third item to be considered.

It goes without saying that some water-power is almost everywhere and that steam-power and steam-generated electric power in some sections and for certain purposes will be preferred for an indefinite time. Our only question is—where are to be the great developments of hydroelectric power and the great concentrations of men for its use? At present it



SOURCE OF BOTH AGRICULTURAL AND MECHANISTIC POWER
Creating the City of Los Angeles



DISTRIBUTION OF WATER-POWER RESOURCES

INTENSIVE POWERS ON THE WESTERN SLOPES

can be profitably conveyed only a few hundred miles from its place of origin. The possible centers of this radiant energy of the future are not evenly distributed. The Geological Survey of the United States has long been carefully gaging the streams through the country to discover what water-power we possess. The potential power thus far measured is sixty million horse-power (59,360,000).

A plan is now on foot, the "Super-power Plan," to connect up in one system, extending from Boston to Washington, D. C., all sources of power, both white coal and black coal. An immeasurable future is on the North Atlantic seaboard in the concentration of power and of humanity.

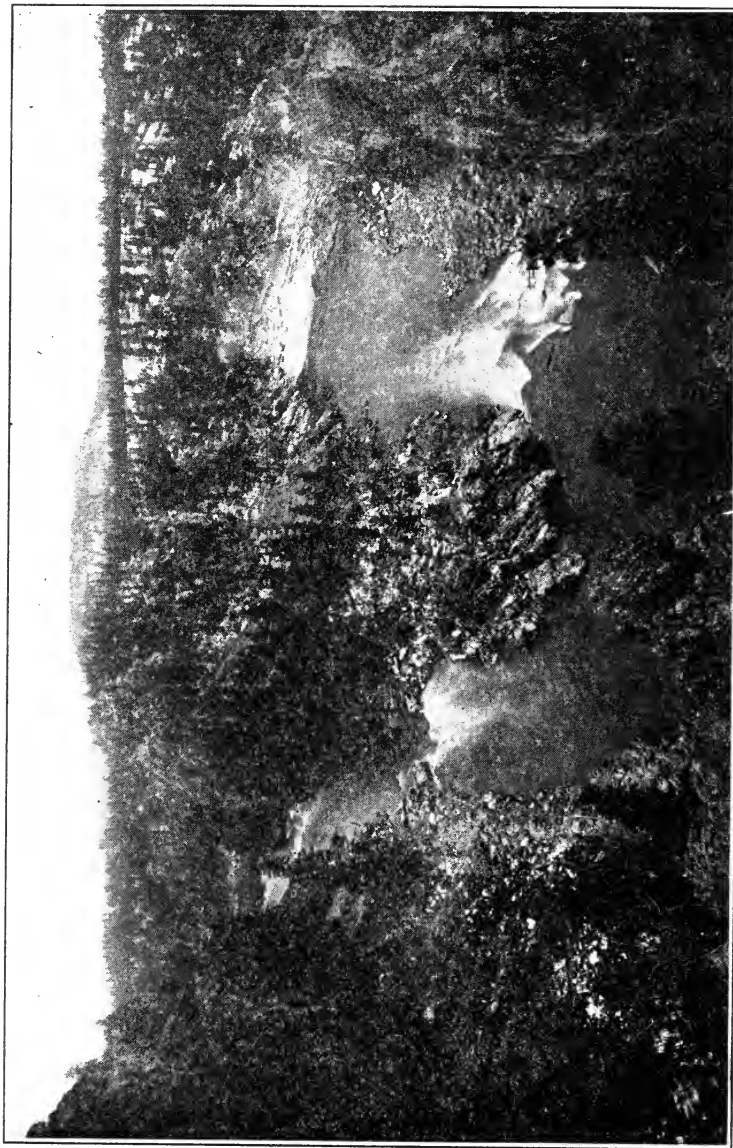
But in the East the prospect is paltry after all, as compared with what it is in the Far West, because the possible power is puny here as compared with what it is there. Seventy-two (72.73) per cent. of the water-power of the whole country is in the Rocky Mountain and Pacific States. More than two-thirds of all, nearly three-quarters of all.

This, again, is not the result of human will or ardent promotion, it is inherent in the structure of the world. The magnet of the sun lifts tons of water daily out of the Pacific Ocean. The winds of heaven sweep it eastward. The fingers of the Sierras and Rockies wring it out of the clouds, gravitation hurls it downward. Man puts his turbines in the falling stream of God's energy. Electric power is the outcome.

Swarming of men in such a region, with their loved ones, all of them needing to know Him in whom they live and move and have their being, is the deepest concern of human history since Calvary.

4. The Giant Already in Harness

A conclusive item in the account of coming hydroelectric power on the Western Slopes is the fact that it has already come there to an unprecedented extent. We are taking no longer a look ahead than is required by present signs of the times. Measured in kilowatt-hours per inhabitant, seventy-



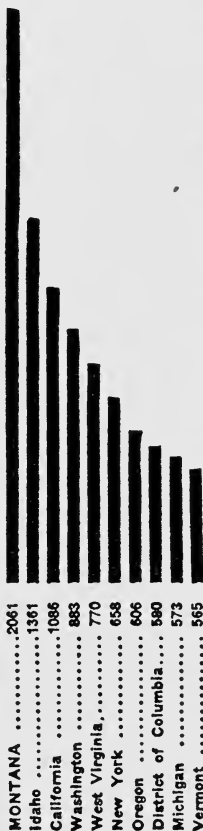
SOURCE OF POWER

Site of Long Lake Plant, Washington Water Power Company
Spokane River, Thirty Miles Northwest from Spokane



A Commonwealth Electrified

Montana leads the nation in annual per capita consumption of Electricity. The figures, in kilowatt hours per person per year, for the first ten States are as follows:



Montana leads the nation in Electrified Steam Railroads—530 miles of electrically operated main line within the State.

Montana leads the nation in electrically operated mining, milling, smelting and refining enterprises—average annual consumption about 750,000,000 kilowatt hours.

“It Means Something to Be a Montanan”

More than 20,000 acres of Montana farm land are irrigated by electric-driven pumps, using current supplied by The Montana Power Company

Projects are on foot for similarly irrigated tracts to the amount of 20,000 acres more.

INTENSIVE POWERS ON THE WESTERN SLOPES

three of these units of electric energy are consumed in the Far West now as compared with thirty-two in the rest of the country.

One great transcontinental railroad has electrified 600 miles of its route (649). Over the continental divide and two subsidiary ranges a train of nearly twice as many cars is hauled nearly twice as fast by one electric locomotive as by two of the most powerful steam locomotives. It also puts power back into the system on down-grade. All the way from that to the running of sewing-machines, hydroelectric power is doing the work of the Western Slopes.

Burdens are being lifted from the shoulders of women. That domestic nightmare, the weekly washing and ironing, is being transformed almost into a pleasant dream. In rural Idaho, on one irrigation tract, the Minidoka, according to the last report, 875 domestic washing-machines were run by electricity, as well as 1,862 flat-irons. Over 5,000 electric appliances were in use, not counting light motors or heaters. Eleven hundred of the consumers were farmers. That was at the beginning of 1920. In a short time almost every farm and every home in that inter-mountain State will be not merely illuminated, but in manifold ways made radiant by the power of white coal.

Whether we look at stupendous work or minute work, it is clear that the great centers of intensive mechanical power are as sure to be where white coal is abundant, as it is sure that the law of gravitation will continue.

This fundamental factor in the progress of mankind, Intensive Mechanistic Power, is in its nature almost omnipotent and everlasting. On the Western Slopes it is concentrated and already demonstrated.

5. The Team-play of Titans

The overwhelming significance of it is the fact that it is here in combination with other factors of power which would be decisive if each were alone. Together they do

not merely add to one another, but actually multiply each other.

Not only the largest resources of water-electric power are here, but also the largest resources of fuel-electric power. The greatest coal areas of the country are here at the same time with the greatest water-power. Filippo Torchio, for a quarter of a century with the New York Edison Company and now its chief electrical engineer, in a recent paper on the "Rôle of Water Power and Coal in Super-power Systems" argues that the Central and Eastern States must indefinitely, so far as human knowledge can foresee, depend on the use of coal to supply the great bulk of its heat and power needs, but should make the largest possible use of water-power as an auxiliary. His judgment as to the Far West, therefore, may be taken as unbiased when he says in the summing up of his opinion, "The Mountain and Pacific States have resources in both coal- and water-powers to meet indefinitely all their heat and power requirements from either source of supply."

When petroleum gives out in the United States, as is predicted within the next two decades, it is thought probable that the semi-rock formation called "shales" can be pulverized and oil expressed to provide gasoline, lubricating oils, and perhaps fuel-oil. This too "occurs in comparatively small quantity in the Eastern United States and in seemingly endless masses in the region of Colorado, Utah and Nevada."³

Another interplay of powers having vital significance for mankind is in the production of nitrates for enriching the soil. In many sections of the United States fertilizers are a necessity if successful agriculture is to continue. The nitrate beds of the world are rapidly approaching exhaustion. The atmosphere abounds in nitrogen. The only practicable way known for gathering it out of the air is by electricity. The only electricity cheap enough to do it economically is water-power electricity. In Europe it has long been used for this

³ A. C. Robinson.

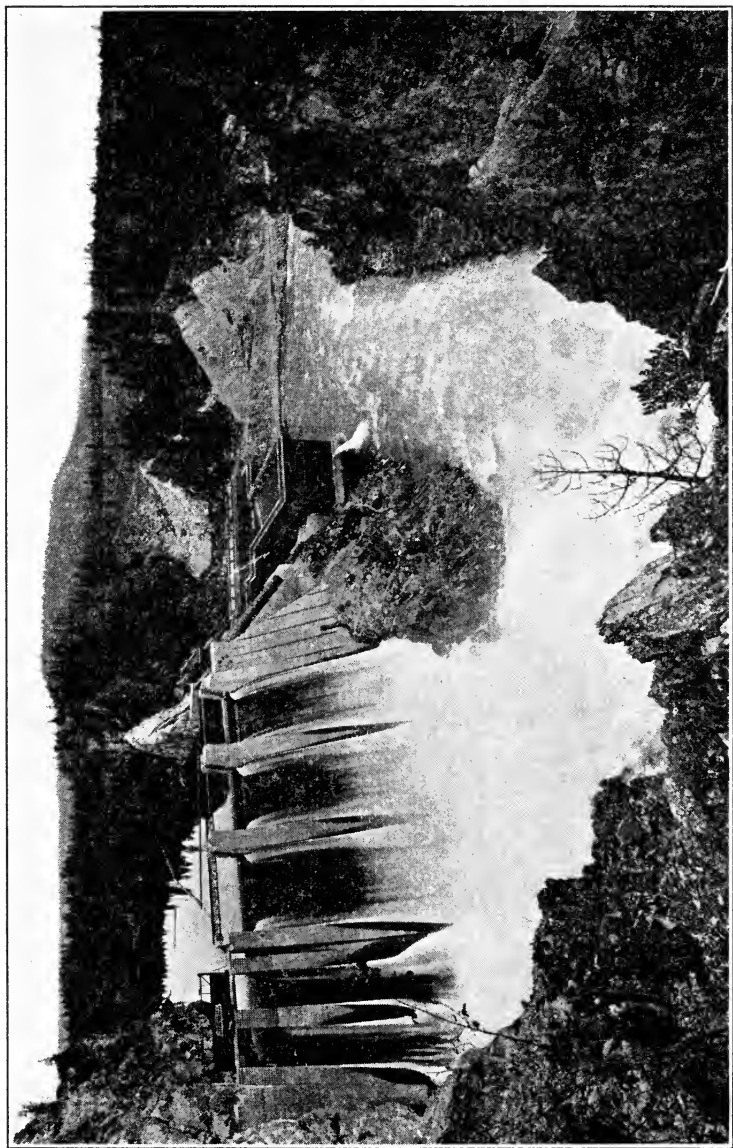
INTENSIVE POWERS ON THE WESTERN SLOPES

purpose, especially in Norway and other mountain regions. The only plant for the purpose in the Western Hemisphere thus far developed is at Niagara Falls. It is hoped that the war-munitions plant at Muscle Shoals, Tenn., may be transformed for such purposes. There is one partial beginning already in the State of Washington. Where hydroelectric power abounds nitrates will be produced. The thin and the exhausted soils of many parts of the country must look to the Western Slope water-powers for indispensable enrichment.

Water-power electricity is the resource also for several invaluable chemicals. One is chlorine, which is used to purify the water-supply of more than one thousand towns and has worked miracles in reducing the death-rate from certain diseases, e. g., in some towns the rate per thousand by typhoid fever from 40 to 3. But the production of nitrate food for the soil is nothing less than basic, bread-and-butter necessity. This enhances indefinitely the intense fertility which we have previously considered.

Again, the double equipment of intensive mechanistic power (water-power and fuel-power) is in the same region with the areas of most *Intensive Agricultural Power*.

One plays into the other, e. g., hydroelectric power in California has been made to pump water for irrigation of fertile areas which are out of reach of gravity canals. In that way, in 1920, \$20,000,000 worth of rice was grown on what otherwise had been unproductive ground. By power from the Roosevelt irrigation reservoir, Arizona, 9 electric pumping-stations are worked, one of them pumping water to irrigate 7,500 acres. The world never before has seen such a combination of the highest tension mechanical power interwoven with the highest tension agricultural power. The developments irrigational and hydroelectric definitely planned by the engineers of great corporations for the Colorado and Columbia rivers, to say nothing of innumerable smaller streams, are equal to the transformation of the currents of human history.



LONG LAKE PLANT OF THE WASHINGTON WATER POWER COMPANY

Having a Total Capacity of 65,000 Horse-power

INTENSIVE MECHANISTIC POWER

The total combination is one of vast forces which together, multiplying each other, become irresistible. It is as certain as anything on earth can be that the human race is to reach here an unmatched intensity of physical development.

What if the masses of well-fed and power-equipped human beings who are to gather here should be without adequate social and spiritual control?

Bergson the philosopher has expressed the conviction that the underlying cause of the Great War was the fact that man's physical power had increased so much faster than his spiritual power that no adequate control existed. Once man struck a blow at the end of his arm three feet away. Then he put a pebble in a sling and struck a harder blow across one hundred feet. Then on a crossbow he dealt death-blows five hundred feet away. At last with powder and balls he hurled destruction thousands of feet. Finally, his physical fist could reach seventy-three miles. But the spirit of man grew at no similar pace. Hence collapse of control. The brutehood had outgrown the manhood.

We must go on, therefore, from consideration of the *Fundamental Powers* to serious thought concerning the *Superlative Powers*. Of these the first we shall note is social power.

III

INTENSIVE SOCIAL POWER

1. Socialization Inherent

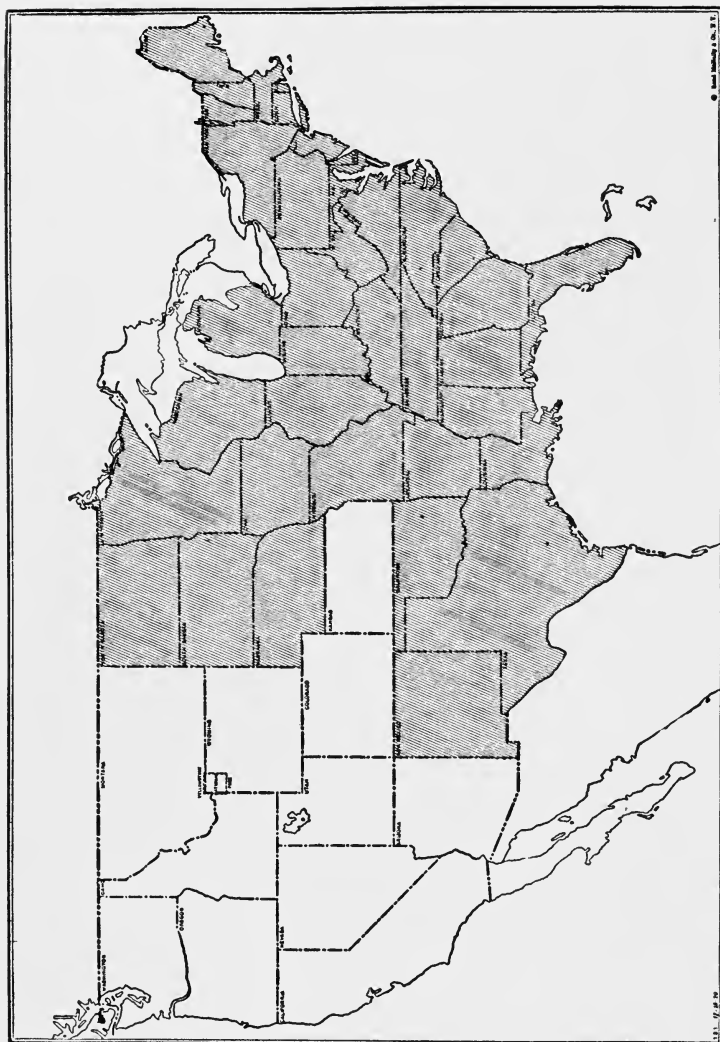
In a region where survival and success are absolutely dependent on cooperative action, as they are where costly irrigation systems must be established and maintained, the soul of man is subjected to an invaluable discipline, the necessity for social action. The eminent physiographer, Prof. A. P. Brigham, of Colgate University, in his "Geographic Influences in American History" (p. 254) puts the case unmistakably when he says:

The single farmer cannot make his own ditch from the river, but there must be communal or government action. This, with small farms, intensive tillage, and close contacts everywhere, compels an approach to socialistic conditions that may never be reached on the watered prairies or among the Appalachians, where, in some larger measure, each man can be a law to himself.

It is not surprising therefore, that special laboratories of social progress are to be found in the semiarid zones of the West. Other causes work to the same end, including comparative freedom from bondage to tradition. "American democracy was not born in the cabin of the Mayflower or in Boston town-meeting, but on the farming, fighting frontier of all the colonies."

2. National Effects of Socialization

In the last presidential election the two radical parties, the Socialist and the Farmer-Labor, polled less than five per cent. of the total vote in the United States. But in the State of Washington they polled more than twenty-eight per cent.



INTENSIVE POWERS ON THE WESTERN SLOPES

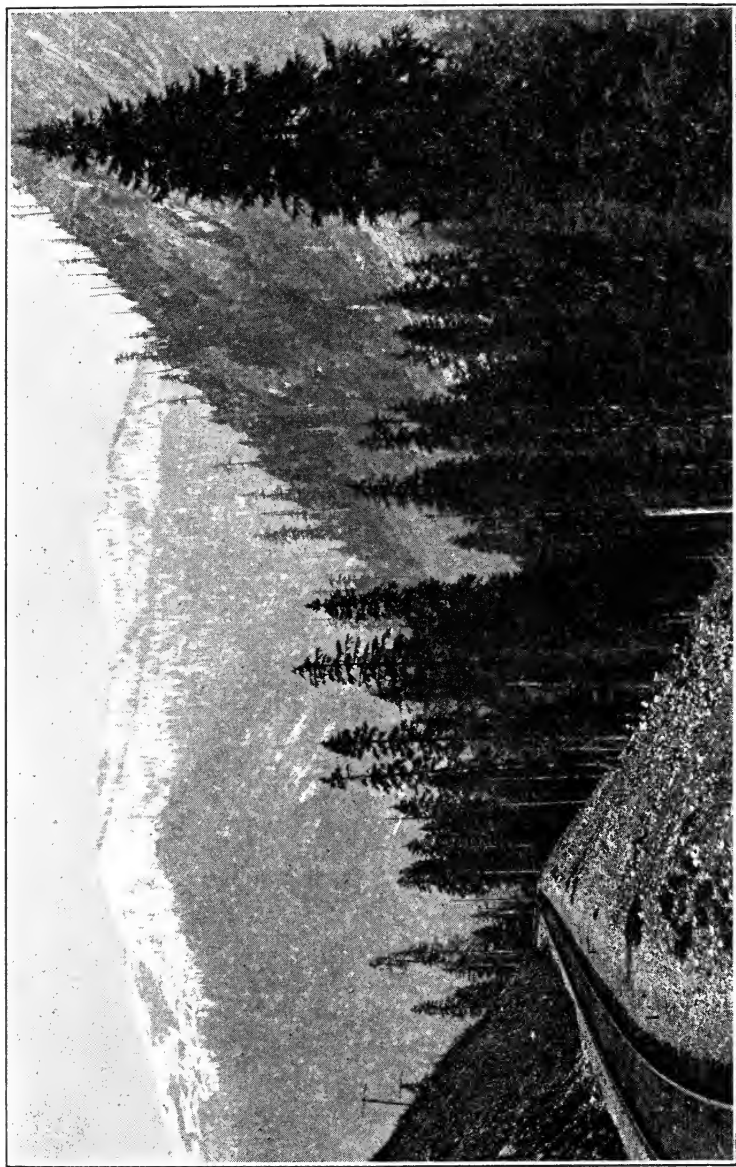
Whether you count that a bad sign of the times or a good sign, it means that we must put into that strong current of human life the Spirit of the Carpenter of Nazareth, the Spirit of the Son of Man, the Spirit of the Son of God.

The I. W. W. has had its most dynamic centers in the Far West.

New as the country is in that region many a recognized social reform has originated there. Popular election of senators, the initiative and referendum, commission government of cities, and many other movements, good, bad, and indifferent, like cafeteria restaurants and jitneys, have moved across the continent in the direction of the prevailing winds, from West to East.

The greatest democratic revolution of the time started in the highland West. The first States to adopt woman's suffrage were Rocky Mountain States. Six years ago a map of the whole country showing in white the areas where "the better half" of society had the franchise as well as the worse half, and in darker shading the rest of the land, showed all the white States in the West.

In the light of the progressive history of our country begotten by its frontiers, which has just been briefly noted, it ought not to be surprising that much the most solid attainment yet made in interdenominational cooperation has been built up in one of the Rocky Mountain States. There has long been wide-cast a vast amount of talk and academic proposal on creedal, ritualistic, and ecclesiastical grounds. But the Home Missions Council of Montana has cut all that out and at the same time has cut out all the many more or less veiled attempts to merge or to regulate independent churches by some outside pressure. It has adopted the simple, common-sense plan of leaving all cherished principles, practises, and affiliations untouched and has succeeded in getting all the Protestant denominations at work in the State to work together in fine, deliberate, articulate regard for each other, above all in intense cooperative regard for the highest wel-



CROSSING THE SNOW-CROWNED CASCADES, WASHINGTON

fare of the people as a whole. It is an intensive social development which is bound to spread everywhere. Thus the State which now makes more practical use of electricity per capita than any other, also goes further than any other in using the age-long intensities of church loyalty. The lightnings are not quenched, they are harnessed and are carrying the loads of human progress.

3. World Bearings

When we are thinking of extensive influence we see that the social outreach of the Western Slopes ought to be in a special sense not only nation-wide but also world-shaping. It lies face to face with the teeming Orient. Eastern Asia gets her most intimate impressions of America from what she sees and feels of American character in this region. The continent on which Christ was born, with its countless myriads for whom he gave his life, the continent which must yet accept his winsome sway, now gains its most telling thought of him as it beholds him enthroned or disenthroned on our Pacific Slopes.

Every institution of organized human welfare inspired by the Christian spirit ought to be established here and put to its highest efficiency, not only for the sake of the vast multitudes who are to have their homes here, but also for the sake of the vaster multitudes to be influenced directly and indirectly by these. The East and the Farthest East which is now the Near West ought to see "Thy neighbor as thyself" organized, monumental, and irresistible in each neighborhood. Every lover of the whole human race desires to have churches, educational institutions, sanatoria, cooperative associations, industrial democracies, in fact all embodiments of Christian brotherhood rooted and growing on the Western Slopes. This is the region for the reincarnation of the great Teacher, the great Healer, the great Builder, the great Brother of mankind, "the strong Son of God."

You notice that we have not been marshaling superficial

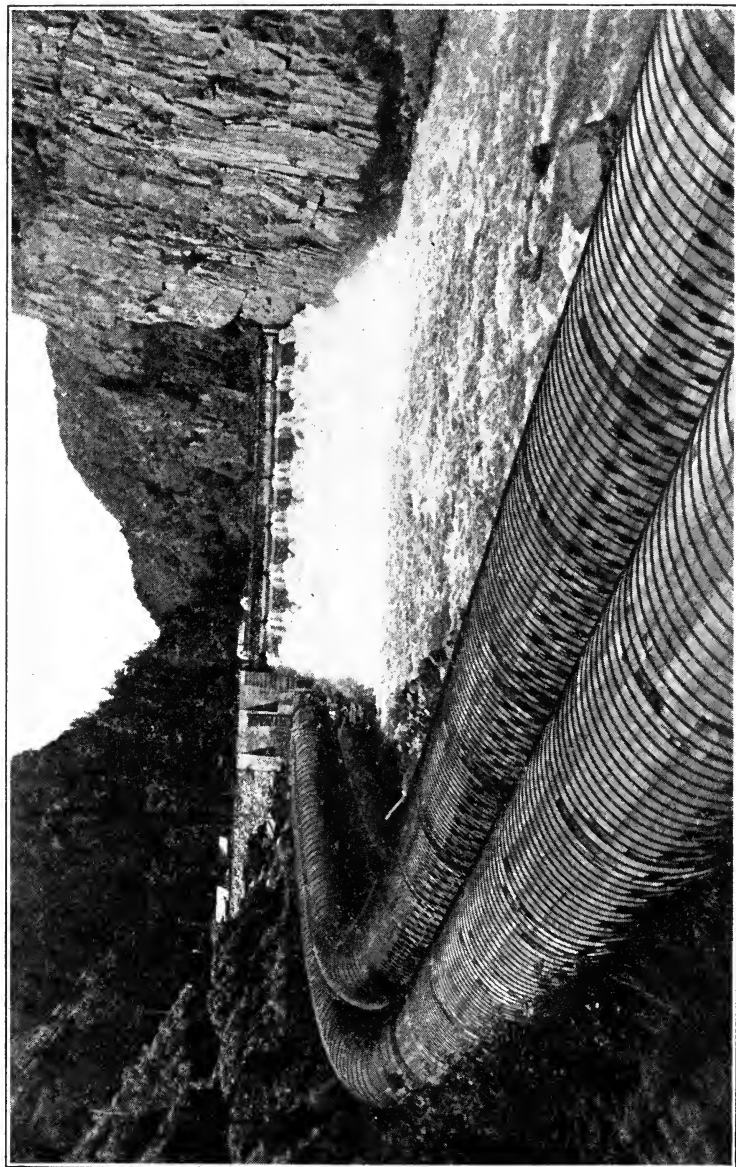
INTENSIVE POWERS ON THE WESTERN SLOPES

considerations. We have said nothing about the Western Slopes timber supply, the greatest in the land; nothing about the silver and the gold found in large quantities in this region; nothing about the immense quantities of oil; nothing about the extra amount of life-begetting sunshine; nothing about the marvelous health conditions; nothing about many other resources of incalculable value; but have confined our thought to indispensable factors of progressive life, food supply, mechanistic production, and human fellowship, cooperation.

By an entirely different line of minute and convincing study Ellsworth Huntington, the eminent physiographer of Yale, shows that there are five natural centers of high human development, Western Europe, the Eastern United States, the Pacific Coast, Japan, and New Zealand.

How about the factor in the progress of humanity which is more central and decisive than any of the rest, even than all the rest put together, that is the spirit that is in men, personality?

The supreme factor in the progress of mankind is spiritual power.



THE MADISON DAM
The Montana Power Company
Near Butte, Montana

IV

INTENSIVE SPIRITUAL POWER

It is not difficult for us to see that surpassing physical forces may naturally be expected to originate amid the titanic surroundings of the Rocky Mountain Slopes, even that the great aspect of spiritual development known as socialization, "thy neighbor as thyself," may take place there, where neighborliness is so necessary to existence. But is anything pivotal in the strictly spiritual, personal development of the race naturally to be expected on those rough and arid stretches?

1. Dearth of Spiritual Forces

The question is made more insistent by the lack of large evangelical forces there now. The comparative figures are distressing. Do they not characterize that kind of country and suggest perpetual spiritual dearth, if not desert, in that region?

The last religious census of the country shows that twenty-four per cent. of the people in the entire country were members of Protestant churches. On the Western Slopes the best State had only seventeen per cent. The others ran down the scale to less than three per cent. in one State, so that they are from seven to twenty-one per cent. poorer than the rest of the country in evangelical forces. In five of the Mountain and Pacific States the Roman Catholics also fell far below their average strength for the whole country. In seven of the eleven States they have a larger percentage of the population than do the Protestants.

Leaving Utah out of the count, the other ten States have more Mormons than Baptists. In one State outside of Utah the Mormons numbered more than all other churches com-

INTENSIVE POWERS ON THE WESTERN SLOPES

bined, and in three other States outside of Utah, more than the two largest Protestant denominations together.

In the older West, and the South, Baptists, Methodists, and Disciples have salted well the civilization. In the Middle Atlantic States, Quakers, Presbyterians, and Lutherans, have thoroughly seasoned life. The Congregationalists have been the backbone of New England. Have these experienced factors in creating Americanism no large contribution to make to the Western Slopes?

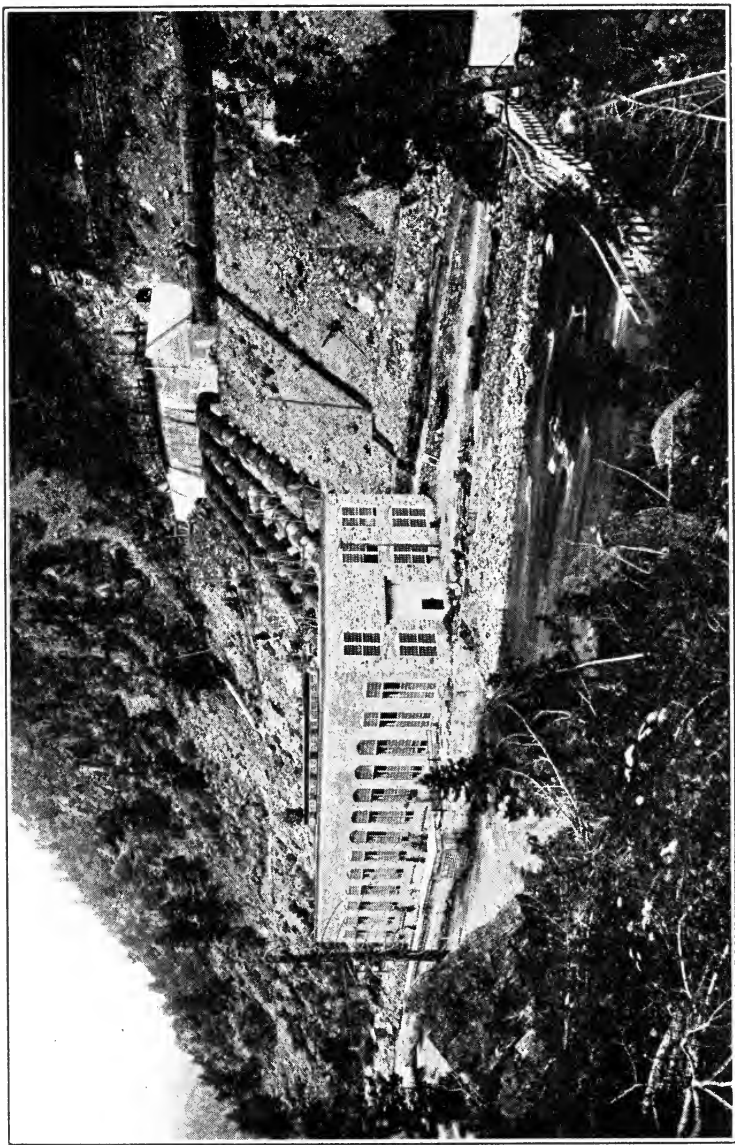
There are some simple facts, however, which suggest that the Western Slopes may yet be the very hotbed of the higher life of humanity.

2. A Spirit-emancipating Factor

It is a fact that hydroelectric power is not only nearly omnipotent and nearly everlasting, but it is also most emancipating to the soul of man. It can release the energies of mankind from physical drudgery for spiritual activities. One man can handle as many units of hydroelectric power as can be handled by two hundred men in using steam-power. This is not surprising when you stop to think of the clean, swift falling of water by its own weight, in one case, and in the other case, the multitudes who must be occupied in the back-breaking work of shoveling coal and ashes. "If we can save thirty million tons of coal, that means that we have made unnecessary the work of thirty thousand miners."

Other multitudes are required to transport the coal. One-third of the entire capacity of the railroads of the country is absorbed in carrying coal. What a boon relief from that would be to the congested transportation business of the country. Electricity will fly with its own wings. It is indeed an angel for human uplift, the white angel of a dawning day.

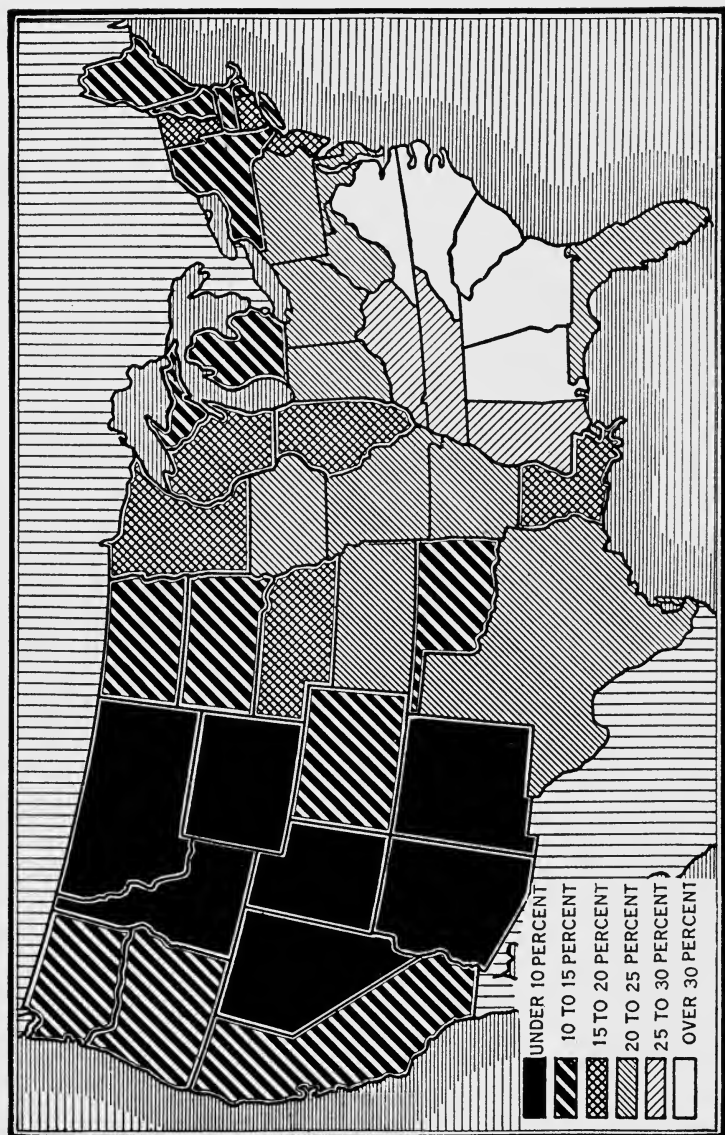
Is this rosy figure? No, it is prosy fact. An eminent electrical engineer, William S. Murray, sums it up this way:



NO. 2. POWER-HOUSE, MADISON DAM

The Montana Power Company

Near Butte, Montana



PROTESTANT POPULATION BY STATES

INTENSIVE POWERS ON THE WESTERN SLOPES

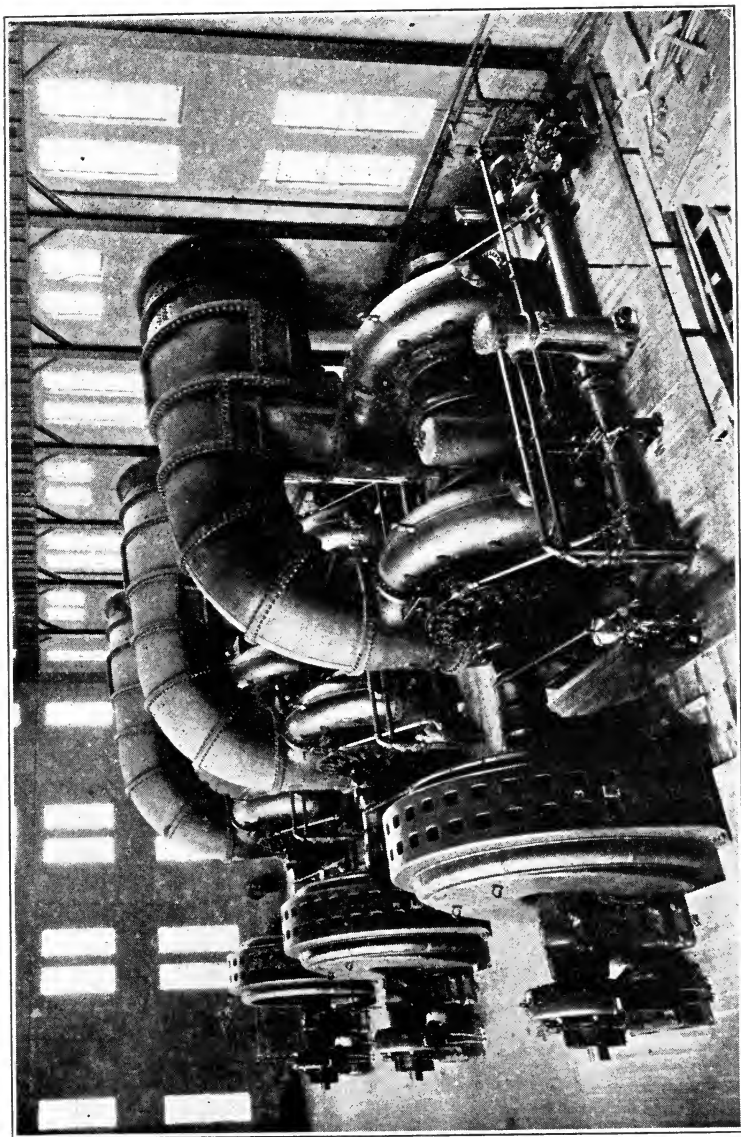
Electrically we can transmit today 500,000 horse-power 300 miles, with a loss of six per cent. Therefore the nearest competitor to electricity as an agent of power in distribution is fifteen hundred times less effective.

What follows? Human power will be consumed, not in physically producing mechanical power, but in spiritually controlling it and utilizing its multiplied application—making the innumerable things which man wants and carrying them where they are wanted. The power will be generated in mountain glens and wherever the water falls, and be put to use at the most convenient places for masses of men to live. Hives of human users of power will gather together for cooperation with the infinite Creator.

It is believed by students of the subject that when all possible water-powers are discovered and harnessed there will be found somewhere between two and four hundred million on the Western Slopes. That would be, curiously enough, one for each inhabitant that can be provisioned there. Physical man-power being commonly reckoned as one-tenth of a horse-power, that means the equivalent of ten servants, untiring, unpetulant, unquitting servants, ten strong, effectual servants for every man, woman, and child on these favored slopes.

Whatever uncertainty attaches to some of the estimates, there is no question about the fundamental fact that abundant electric power can and does liberate man from materialistic drudgery, releasing for activity his highest faculties. The spiritual opportunities of the human race under such conditions are more than large. The possibilities are inconceivably great.

Again, it is a fact that the necessities of existence in an arid region not only permit, but require and so call into exercise some of the highest of the spiritual powers. Man can not lazily leave to luck or to Providence the time and the amount of moisture which the land must have in order to produce. The exercise of a high order of intelligence and a well-poised action of will are indispensable. Man can subsist only by becoming himself a kind of divine providence.



TURBINES AND DYNAMOS

In No. 2 Power-house, Madison Dam, Near Butte, Montana
The Montana Power Company



3. Current Intensities

It is a fact that all the great National parks are in the region of which we are thinking. Rocky Mountain, Yellowstone, Glacier, Yosemite, Grand Cañon, and the rest, how they speak the highest scenic inspiration on the face of the earth! In days when thoughtful men have come to recognize the vital place of play and especially of outdoor life, the vast national forests which are equally with the parks open for wholesome recreation, furnish an incalculable resource in the culture of normal personality. A map of the United States shows that the wide open spaces, the breathing-places of the nation, are to be found on the Western Slopes.

Again, it is a fact that the great monuments of early human culture within the bounds of the United States are here. To mention but one of many examples, in the Salt and Gila River valleys vast pre-Columbian irrigation works are found. Eleven main canals 135 miles in length have been traced capable of irrigating 100,000 acres.

Again, it is a fact that the daily paper which gives more space to matters of art, esthetic art, than any other daily in the United States, is published not in Boston, but in Santa Fè, New Mexico.

Again, it is a fact that the investigations of the Sage Foundation in New York have shown Far Western States as ranking highest in the country in educational standards and attainments. It says that its "index number for State school systems gives for every State a numerical rating which is a combination of ten different measures of public school accomplishment." Between 1890 and 1918 Montana moved from eighth place among the States to first. Among the fifty-two States and Territories in this ranking, two others on the Pacific Slope stand next to Montana, California second, Arizona third. Washington and Utah also are not far from the top of the scale. Taking the last forty years together, California averages highest in the whole country. The Bureau

INTENSIVE POWERS ON THE WESTERN SLOPES

of Education groups the States in five divisions. The eleven States of the Western Division taken together now have an index number five points higher than the highest of the other divisions, and thirteen points higher than the average for the whole country.

Again, it is a fact that for many years the Baptist church-members of the Western Slopes, though handicapped by the necessity for building at the same time schoolhouses, roads, and everything else out of the raw, and paying interest to Eastern philanthopists for much of the capital necessary for this building, yet have given to missions of all kinds year after year more than twice as much money per member as the Baptists east of the Rocky Mountains have given. More significant still of high tension altruism is the fact that while the "benevolences" of Northern Baptists as a whole the last reported year equalled about thirty-three per cent. of their church "current expenses," on the Western Slopes the benevolences equalled nearly fifty per cent. of the current expenses. For churches—the average church over a wide, new country—to give away half as much as they spend in their own support is taking a long advance step toward loving your neighbor as yourself. Such intensive sacrifice everywhere would lift missionary enterprise to undreamed heights. In the New World Movement the first State to subscribe its full apportionment was Arizona.

Again, the intensity of spiritual life is indicated by the number of new-born disciples in proportion to membership. The last reported year in the whole Northern Baptist Convention it was about 4 per cent., and on the Western Slopes about 7 per cent.

There is much spiritual night in the Far West as yet, but when the light is turned on there it becomes a burning and a shining light, a Mazda lamp rather than a tallow candle.

Mr. James Bryce said of the Southern States in the American Commonwealth, "They have a high religious voltage."

INTENSIVE SPIRITUAL POWER

That is at least the gracious possibility and it certainly is the supreme need of the Far Western States.

With a whole galaxy of facts like these can we not give ourselves with high courage to the cultivation of Intensive Spiritual Power on the Western Slopes?

4. The Normal Breeding-ground of Soul-mastery

In a matter as delicate as this, and at the same time as vital and supremely important as this, it is well to turn to the demonstrated facts of history.

It was on the semiarid uplands that Abraham, Isaac, and Jacob found that promised land out of which all the nations of the earth were to be blessed. It was in the mountainous desert of Sinai that Moses was inspired to lead and train the chosen Race. "The word of God came unto John, the son of Zachariah, in the desert." Jesus and Saul of Tarsus were driven by the Spirit into the desert for periods of special preparation. It was while journeying toward Damascus, that matchless irrigated oasis in the desert, that Saul had his world-transforming vision. It was on the sandy stretches of Arabia that Mohammed became possessed by an ideal of the one God.

In short, what is often called the "Semitic genius for religion" was begotten on arid and semiarid plateaux. No one can understand adequately the sixty-six Sacred Writings of the world's loftiest idealism without seeing them in their native settings of mountains, deserts, and irrigated fields. From the Garden of Eden on the first page of Genesis to the paradise pictures on the last page of Revelation the Bible literally grows out of conditions like those of our Western Slopes. It was over such areas that the bells of heaven rang most distinctly in the past. For more than a thousand years they were ringing there. Who can say that in the thousand years to come the most distinct echoes of the heavenly chimes may not be heard in a similar country?

In 1850 a group of pioneers on the Oregon trail in the

INTENSIVE POWERS ON THE WESTERN SLOPES

intermountain region saw a cloud of dust on the horizon, then rolling toward them. It soon became evident that a band of Indians was swooping down for plunder and scalps—no strange occurrence in those days. The leader of that caravan of pioneers was a Quaker, Miller by name. His intense idealism did not permit him to fight, even in self-defense. The Miller family fell on their knees and lifted up their hands in prayer. When the savages drew near and saw them “talking to the Great Spirit,” they curbed their wild ponies back on their haunches, then wheeled and fled. A lad, nine years of age, in that kneeling group, with open eyes saw it all. He grew up in the intensely spiritual atmosphere of such pioneers. His personal life fell from the heights, but like the sweet singer of Israel in the Fifty-first Psalm, even when fallen, he could say, “My tongue shall sing of thy righteousness.” Cincinnati Heine Miller became so identified with the inspiring scenery of the Pacific Slope as to be renamed Joaquin Miller, the “poet of the Sierras.” He had a psalmist vision when he sang

A wild, wide land of mysteries,
Of salt-sea lakes and dried-up seas,
And lonely wells and pools; a land
That seems so like dead Palestine
Save that its wastes have no confine
Till push'd against the level'd skies.
A land from out whose depths shall rise
The new-time prophets. Yea, the land
From out whose awful depths shall come
A lowly man with dusty feet,
A man fresh from his Maker's hand,
A singer singing oversweet,
A charmer charming very wise;
And then all men shall not be dumb,
Nay, not be dumb; for he shall say,
“Take heed, for I prepare the way
For weary feet. Lo! from this land
Of Jordan streams and sea-washed sand,
The Christ shall come when next the race
Of man shall look upon his face.”

CONCLUSION

The Redemptive Passion

We have been examining solid facts with calm, severe, calculating restraint in the cold, dispassionate light of science and of history. It is time now, if there be in us indeed any "passion for humanity," to let that passion have gangway.

The words of an ancient, luminous prophecy are not one whit too glowing for the Western Slopes of America:

Sing, O barren, thou that didst not bear;
Break forth into singing, and cry aloud, thou that didst not travail with child:

For more are the children of the desolate
Than the children of the married wife, saith Jehovah.

Enlarge the place of thy tent,
And let them stretch forth the curtains of thy habitations;
Spare not: lengthen thy cords, and strengthen thy stakes.
For thou shalt spread abroad on the right hand and on the left;
And thy seed shall possess the nations.

Such an outburst as this fifty-fourth chapter of Isaiah can be real only when it is infilled by the fifty-third chapter in which "the Servant of Jehovah" is beheld as a suffering, self-sacrificing servant, even a substitutionary servant. "Surely he hath borne our griefs and carried our sorrows. Jehovah hath laid on him"—margin, "made to light on him," literally, hath struck into him—"the iniquity of us all."

THE AWFUL AND INSPIRING POSSIBILITIES
OF OUR WESTERN SLOPES MUST BE STRUCK
INTO US.

On our Western Slopes intensive farming will support two hundred million people; intensive mechanical power will supply them with manifold occupations; intensive social coopera-

CONCLUSION

tion, along with abundant space, will provide conditions for the highest and happiest kind of human life; face-to-face contact with the vast, needy, developing Orient will offer opportunity for widest world service.

Will the consummation of human attainment accordingly be reached on the Western Slopes of America? Will what Herbert Spencer calls "the ultimate man" be developed?

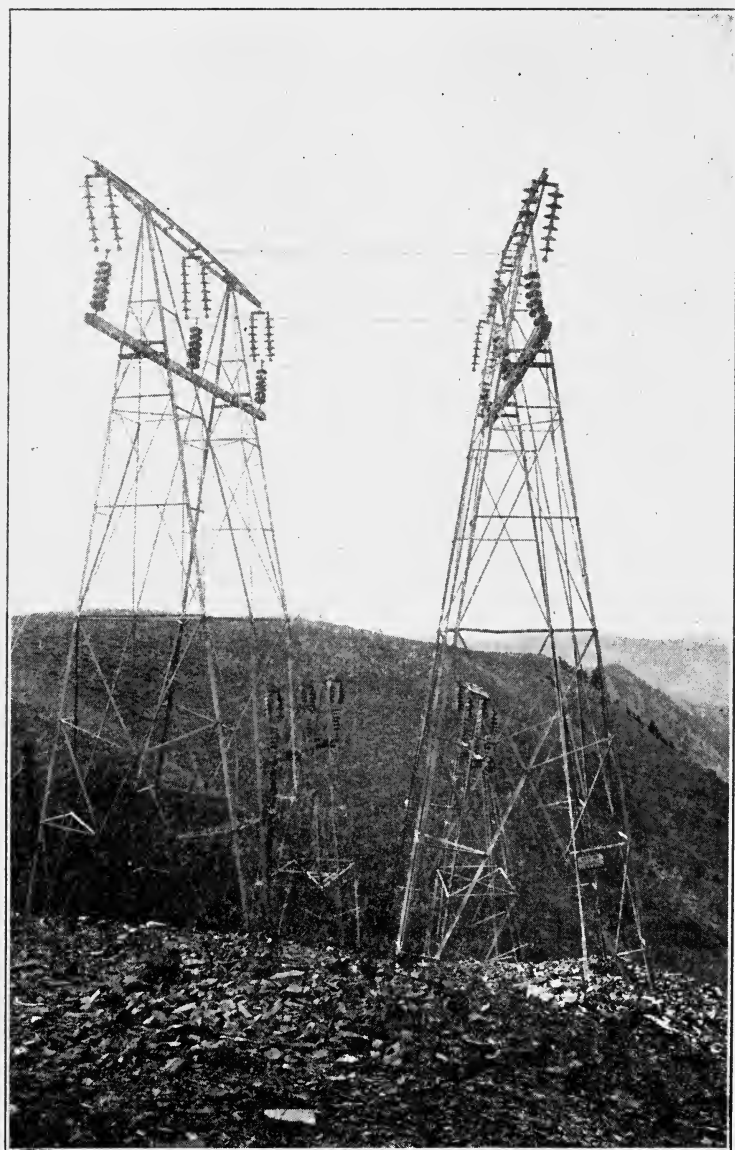
The answer rests with you and me. God has done his part. He has organized cosmic forces to that end. But the issue hangs absolutely on whether we combine to make the Spirit of Jesus Christ so altogether winsome and irresistible on our Sunset Slopes that no lower spirit can have sway.

This is the song of the wire
As it hums in the winter night:
I am the bearer of fire;
I am the bearer of light;
I am the bearer of power,
And I am the bearer of speech,
Infinite speed is my dower
And limitless reach.

The blizzard may wrap me about:
I deliver my fire in its face,
The sun and the moon may go out:
I deliver my light in its place.
A myriad trust to my strength:
I deliver my power for their need,
Unchecked to no matter what length
My messages speed.

This is the task that I do
And this the reward that it brings:
That out of my service a new
And manifold happiness springs.
Proudly my burdens I bear:
Was ever so slender a root
That bloomed with a flower more fair
Or bore such a fruit?

—Gorton Veeder Carruth.



GREAT FALLS TOWER LINE
Missouri River Crossing

STATISTICAL TABLES

MAY 1, 1920, TO APRIL 30, 1921

I

AMERICAN BAPTIST HOME MISSION SOCIETY

DEPARTMENT ENGLISH-SPEAKING AND INDIAN WORK

<i>Missionary Pastors</i> ¹	<i>English-Speaking</i>	<i>Indian Work</i>
Arizona	13	1
California, North	5	2 ¹
California, South	16	..
Colorado	16	..
Delaware	3	..
Idaho	8	..
Kansas	1	..
Montana	12	2
Nebraska	10	..
Nevada	9	1
North Dakota.....	5	..
Oklahoma .....	..	8
Oregon	10	..
South Dakota.....	12	..
Utah	5	..
Washington, East	18	..
Washington, West	9	..
Wyoming	18	..
Alaska .....	..	1 ²
	<hr/> 170	<hr/> 15

*General Workers*¹

General Missionaries.....	6
Assistants	44
Total	<hr/> 50

SUMMARY

Missionary Pastors	170
Workers for Indians	15
General Workers.....	50
Grand Total	<hr/> 235

¹ Engaged jointly with State Conventions.

² Jointly with the Woman's Society.

II

AMERICAN BAPTIST HOME MISSION SOCIETY

ALL DEPARTMENTS, MISSIONARY WORKERS ON THE WESTERN SLOPES

	<i>General Workers</i>	<i>Local Workers</i>
English-speaking ¹ and Indian Missions...	36	146
City and Foreign-speaking Missions ¹	34	293
Promotion of Interest and Colporter Work ²	25	...
	<hr/>	<hr/>
Total	95	439
		<hr/>
Grand Total		534

¹ Engaged jointly with State Conventions.

² Engaged jointly with the Publication Society.

III

THE AMERICAN BAPTIST HOME MISSION SOCIETY

YEAR'S EXPENDITURES ON THE WESTERN SLOPES

	English and Foreign-speaking Work	Indian Missions	Chapel Car and Colporteur	Evangelism	Social Service	Church Edifice	Total
Arizona	\$7,995.97	\$2,782.99	\$4,225.00	.....	.....	\$8,300.00	\$23,303.96
California, North	14,639.53	1,527.93	6,135.88	\$800.00	\$542.10	6,400.00	30,045.44
California, South	13,999.99	.....	.....	2,005.00	.....	8,900.00	24,965.89
Colorado	8,280.99	.....	11,881.92	3,313.34	.....	3,400.00	26,876.25
Idaho	8,445.21	.....	1,491.64	1,209.66	.....	3,687.50	14,834.01
Montana	14,836.81	7,910.67	6,816.24	.....	.....	3,647.34	33,211.06
Nevada	5,442.47	1,233.34	.....	2,784.96	.....	2,400.00	11,860.77
Oregon	13,166.18	.....	1,985.89	2,818.38	.....	.....	17,970.45
Utah	5,172.08	.....	700.00	.....	.....	.....	5,872.08
Washington, East	6,256.35	.....	2,487.28	.....	.....	.....	8,743.63
Washington, West	10,815.99	.....	1,612.48	1,436.64	.....	1,113.80	14,978.91
Wyoming	14,551.17	.....	6,717.19	2,820.20	.....	10,750.00	34,838.56
Total	\$123,602.74	\$13,454.93	\$44,053.52	\$17,249.08	\$542.10	\$48,598.64	\$247,501.01

IV

WOMAN'S AMERICAN BAPTIST HOME MISSION SOCIETY

WOMEN MISSIONARIES AND EXPENDITURES ON THE WESTERN SLOPES

Arizona	7	\$7,120.00
California ¹	26	26,478.61
Colorado	3	2,448.00
Idaho ¹	1	576.00
Montana	7	6,965.26
Nevada	3	2,245.00
Oregon	5	4,934.62
Utah ¹	3	2,448.00
Washington	7	7,684.00
Wyoming	4	3,990.00
<hr/>		<hr/>
Total	66	\$65,190.99

¹ Jointly with State Conventions.

V

AMERICAN BAPTIST PUBLICATION SOCIETY

WORKERS AND EXPENDITURES ON THE WESTERN SLOPES

	Bible Workers	Salaries and Expenses	Religious Education Workers	Salaries and Expenses	Colporteur and Chapel Car Workers	Expenses	Financial Total
Arizona	1	\$1,500	1	\$2,240	3	\$1,800	\$5,540
California	4	1,032	3	7,980	4	3,000	12,012
Colorado	1	1,200	1	2,700	1	1,500	5,400
Idaho .....	..	.....	..	.....	1	600	600
Montana .....	..	.....	1	2,100	..	.....	2,100
Oregon	1	1,800	1	2,740	1	1,500	6,040
Washington	1	1,800	1	3,213	2	2,100	7,113
Wyoming .....	..	.....	1	2,100	1	1,500	3,600
Total	8	\$7,332	9	\$23,073	13	\$12,000	\$42,405

VI

BAPTIST STATE CONVENTIONS ON THE WESTERN SLOPES
JOINT WORK AS WELL AS INDEPENDENT WORK

	Independently of National Societies		Cooperatively with National Societies			Total
	Workers	Expenditures	Home Mission Society	Woman's Home Mission Society	Publication Society	
Arizona	5	\$1,541.76	\$17,399.63	.....¹	.....	\$18,941.39
California, North..	29	19,650.00	11,161.59	\$600.00 ¹	\$320.00	31,731.59
California, South..	33	16,785.00	12,395.83	.....	300.00	29,480.83
Colorado	40	33,600.00	2,273.67	.....	300.00	36,173.67
Idaho	14	5,043.00	5,835.33	96.00	.....	10,974.33
Montana	6	2,230.00	3,162.50	.....	.....	5,392.50
Nevada .....	..	.....	804.57	.....	.....	804.57
Oregon	21	14,446.68	1,039.02	.....	160.00	15,665.70
Utah .....	..	.....	715.93	192.00	.....	907.93
Washington, East..	21	12,295.00	3,791.90	.....	125.00	16,211.90
Washington, West..	21	13,430.00	3,421.92	.....	232.00	17,083.92
Wyoming	2	1,300.00	3,882.79	.....	.....	5,182.79
Total	192	\$120,341.00	\$65,884.68	\$888.00	\$1,437.00	\$188,551.12

¹ This figure is for both California Conventions, Northern and Southern.

VII

AGGREGATES

BAPTIST MISSIONARIES AND MISSION EXPENDITURES ON WESTERN SLOPES

	<i>Missionary Workers</i>	<i>Expenditures</i>
Home Mission Society	534 ¹	\$247,501.01
Woman's Home Mission Society	66 ²	65,190.99
Publication Society	17 ³	42,405.00
State Conventions cooperatively with above .....	..	68,009.68
State Conventions by themselves	192	120,341.44
Total.....	809	\$543,448.12

¹ Many of these jointly with State Conventions or Publication Society.

² Some of these jointly with State Conventions.

³ As many more jointly with the Home Mission Society.

VIII

BAPTIST STATE CONVENTION STATISTICS

Compiled from Northern Baptist

CONVENTIONS	Associations	Churches	Ordained Ministers	Membership		American		New American		Afro-American	
				Baptisms	Total Membership	Churches	Membership	Churches	Membership	Churches	Membership
Arizona	1	46	55	470	4,139	36	3,829	1	45	9	265
California, North .	10	134	188	1,270	18,163	113	17,146	2	178	19	839
California, South..	4	103	217	2,094	27,318	87	26,891	16	427	...	.....
Colorado	8	119	154	1,107	18,013	95	16,569	6	403	18	1,041
Idaho	3	39	49	120	4,541	39	4,541	...	.....	...	.....
Montana	7	58	41	347	4,242	50	4,060	3	92	5	90
Nevada	1	13	14	55	665	13	665	...	.....	...	.....
Oregon	10	98	131	694	12,001	86	10,319	11	1,519	1	163
Utah	1	15	7	68	1,174	15	1,174	...	.....	...	.....
Washington, East .	6	79	46	254	6,029	75	5,810	...	.....	4	210
Washington, West.	7	106	91	1,021	12,632	78	10,221	23	2,081	5	330
Wyoming	2	46	34	169	2,330	43	2,247	...	.....	3	83
Total	60	856	1,027	7,669	111,247	730	103,472	62	4,745	64	3,021

VIII

ON THE WESTERN SLOPES, 1921

Convention Annual, 1921

Bible Schools			Church Property			Contributions		
Schools	Enrolment	Edifices	Parsonages	Total Valuation	Indebtedness	Current Expenses	Beneficence	Total
39	3,942	44	23	\$386,400	\$33,800	\$84,615	\$31,740	\$116,355
124	14,781	150	53	1,829,100	122,300	292,966	120,428	413,394
116	26,749	116	52	2,822,600	133,500	730,112	457,156	187,268
102	14,267	88	41	1,226,300	68,700	215,340	108,039	323,379
45	4,000	38	24	291,600	.....	54,933	14,978	69,911
43	3,516	41	16	410,000	8,700	51,000	20,743	71,743
13	1,036	10	5	111,400	8,400	19,489	5,899	25,388
82	10,448	95	16	949,000	30,100	159,190	51,885	211,975
15	1,079	14	1	184,300	.....	16,964	2,431	19,395
61	5,751	73	10	556,600	49,200	116,489	20,227	136,716
114	12,125	92	37	1,013,900	.....	251,094	95,753	346,847
47	2,735	32	13	184,500	.....	38,263	5,474	43,737
801	100,429	793	291	\$9,965,700	\$454,700	\$2,030,455	\$934,753	\$1,966,108





